

Practitioner's Docket No. HES 2003-IP-012703U1P1

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Patent application

of \_\_\_\_\_  
Inventor(s)

for \_\_\_\_\_  
Title of invention

**OR**

In re application of: William W. Shumway

Application No.: **0** 10/ 829,484

Group Art Unit: 1712

Filed: April 22, 2004

Examiner: unknown

For: Polymer-Based, Surfactant-Free Emulsions and Methods of Use Thereof

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT  
WITHIN THREE MONTHS OF FILING OR  
BEFORE MAILING OF FIRST OFFICE ACTION (37 C.F.R. § 1.97(b))**

**CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10\***

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I hereby certify that, on the date shown below, this correspondence is being:

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**37 C.F.R. § 1.8(a)**

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**TRANSMISSION**

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Sheila Gibbs  
Signature

Date: 7-15-04

Sheila Gibbs  
(type or print name of person certifying)

\* Only the date of filing (§ 1.6) will be the date used in a patent term adjustment calculation, although the date on any certificate of mailing or transmission under § 1.8 continues to be taken into account in determining timeliness. See § 1.703(f). Consider "Express Mail Post Office to Addressee" (§ 1.10) or facsimile transmission (§ 1.6(d)) for the reply to be accorded the earliest possible filing date for patent term adjustment calculations.

(Transmittal of Information Disclosure Statement Within Three Months of Filing or Before Mailing of First Office Action [8-3]—page 1 of 3)

**NOTE:** 37 C.F.R. 1.98(b):

- (1) Each U.S. patent listed in an information disclosure statement must be identified by inventor, patent number, and issue date.
- (2) Each U.S. patent application publication listed in an information disclosure statement shall be identified by applicant, patent application publication number, and publication date.
- (3) Each U.S. application listed in an information disclosure statement must be identified by the inventor, application number, and filing date.
- (4) Each foreign patent or published foreign patent application listed in an information disclosure statement must be identified by the country or patent office which issued the patent or published the application, an appropriate document number, and the publication date indicated on the patent or published application.
- (5) Each publication listed in an information disclosure statement must be identified by publisher, author (if any), title, relevant pages of the publication, date, and place of publication.

**WARNING:** No extension of time can be had under 37 C.F.R. § 1.136 (a) or (b) for filing an IDS. 37 C.F.R. § 1.97(f).

**NOTE:** The "filing date of a national application" under 37 C.F.R. § 1.97(b) has two possible meanings. Where the filing is a direct one to the United States Patent & Trademark Office, the filing is defined in 37 C.F.R. § 1.53(b) as "the date on which: (1) A specification containing a description pursuant to § 1.71 and at least one claim pursuant to § 1.75; and (2) any drawing required by § 1.81(a), are filed in the Patent and Trademark Office in the name of the actual inventor or inventors as required by § 1.41." 37 C.F.R. § 1.97(b)(1). On the other hand, an international application that enters the national stage occurs when the applicant has filed the documents and fees required by 35 U.S.C. § 371(c) within the periods set forth in § 1.494 or § 1.496. 35 U.S.C. § 371(c) requires the filing of the following: (1) the basic national fee; (2) a copy of the international application, unless already sent by the International Bureau, and optionally an English translation if filed in another language; and, also optionally (3) amendments under PCT Article 19, with a translation into English if made in another language; (4) an oath or declaration; and (5) a translation into English of any annexes to the international preliminary examination report, if such annexes were made in another language. The optional items must be submitted later, with surcharges. 37 C.F.R. § 1.97(b)(2).

### **IDENTIFICATION OF TIME OF FILING THE ACCOMPANYING INFORMATION DISCLOSURE STATEMENT**

The information disclosure statement submitted herewith is being filed within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. 37 C.F.R. § 1.97(b).

**NOTE:** "No certification or fee is due when the filing is made within the above time period. It is advisable to ensure that no Office action has been mailed if the disclosure statement is delayed until after three months from filing."

**NOTE:** "An information disclosure statement will be considered to have been filed on the day it was received in the Office, or on an earlier date of a mailing if accompanied by a properly executed certificate of mailing under 37 C.F.R. 1.8, or Express Mail certificate under 37 C.F.R. 1.10. An Office action is mailed on the date indicated in the Office action." Notice of April 20, 1992 (1138 O.G. 37-41, 38). See also § 609, M.P.E.P., 8th Edition.

**NOTE:** "The term 'national application' includes continuing applications (continuations, divisions, continuations-in-part) so three-months will be measured from the actual filing date of an application as opposed [sic] to the effective date of a continuing application." Notice of April 20, 1992 (1138 O.G. 37-41, 39).

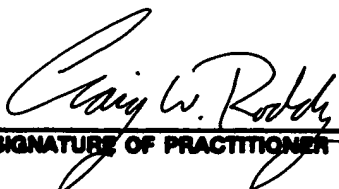
**NOTE:** "An action on the merits means an action which treats the patentability of the claims in an application, as opposed to only formal or procedural requirements. An action on the merits would, for example, contain a rejection or indication of allowability of a claim or claims rather than just a restriction requirements (37 C.F.R. 1.142) or just a requirement for additional fees to have a claim considered (37 C.F.R. 1.16(d)). Thus, if an application was filed on Jan. 1 and the first Office action on the merits was not mailed until six months later on July 1, the examiner would be required to consider any proper information disclosure statement filed prior to July 1." Notice of April 20, 1992 (1138 O.G. 37-41, 39).

**WARNING:** "A petition for suspension of action to allow applicant time to submit an information disclosure statement will be denied as failing to present good and sufficient reasons, since 37 C.F.R. § 1.97 provides adequate recourse for the timely submission of prior art for consideration by the examiner." Notice of July 6, 1992 (1141 O.G. 63). But see § 103(b) and (c), limited suspension of action in a continued prosecution application (CPA) filed under § 1.53(d) and in a request for continued examination (RCE) under § 1.114.

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SIGNATURE OF PRACTITIONER  
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Duncan, OK 73536-0440



**PATENT**  
**HES 2003-IP-012703U1P1**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: William W. Shumway )  
)  
) Art Unit: Unknown  
)  
Serial No.: unknown )  
)  
Filed: concurrently herewith ) Examiner: Unknown  
)  
For: POLYMERBASED, SURFACTANT-FREE )  
EMULSIONS AND METHODS OF USE )  
THEREOF

**INFORMATION DISCLOSURE STATEMENT**

ASSISTANT COMMISSIONER FOR PATENTS  
Washington, D.C. 20231

SIR:

The following documents are known to Applicants or Applicants' attorneys and are submitted for the Examiner to consider in the above-captioned application.

**U. S. PATENTS**

U.S. Patent No. 3,125,517 issued March 17, 1964 to Ronald L. Voda et al.  
U.S. Patent No. 3,826,771 issued July 30, 1974 to Donald R. Anderson et al.  
U.S. Patent No. 4,033,784 issued July 5, 1977 to Michael B. Lawson et al.  
U.S. Patent No. 4,068,676 issued January 17, 1978 to Donald J. Thorn et al.  
U.S. Patent No. 4,107,057 issued August 15, 1978 to Walter R. Dill et al.  
U.S. Patent No. 4,108,681 issued August 22, 1978 to Michael B. Lawson et al.  
U.S. Patent No. 4,392,917 issued July 12, 1983 to Stanley A. Lipowski et al.  
U.S. Patent No. 4,460,483 issued July 17, 1984 to Jimmie d. Weaver.  
U.S. Patent No. 4,480,696 issued November 6, 1984 to Stephen W. Almond et al.

U.S. Patent No. 4,502,963 issued March 5, 1985 to Bobby R. Harmon et al.

U.S. Patent No. 4,519,455 issued May 28, 1985 to Marlin D. Holtmyer et al.

U.S. Patent No. 4,554,082 issued November 19, 1985 to Marlin D. Holtmyer et al.

U.S. Patent No. 4,627,495 issued December 9, 1986 to Phillip C. Harris et al.

U.S. Patent No. 4,659,486 issued April 21, 1987 to Bobby R. Harmon.

U.S. Patent No. 4,670,550 issued June 2, 1987 to Jan J. Bleeker et al.

U.S. Patent No. 4,772,646 issued September 20, 1988 to Weldon M. Harms et al.

U.S. Patent No. 5,021,170 issued June 4, 1991 to Thomas G. Shumate et al.

U.S. Patent No. 5,194,422 issued March 16, 1993 to Heinz Mueller et al.

U.S. Patent No. 5,232,910 issued August 3, 1993 to Heinz Mueller et al.

U.S. Patent No. 5,252,554 issued October 12, 1993 to Heinz Mueller et al.

U.S. Patent No. 5,254,531 issued October 19, 1993 to Heinz Mueller et al.

U.S. Patent No. 5,294,353 issued March 15, 1994 to Walter r. Dill.

U.S. Patent No. 5,318,956 issued June 7, 1994 to Heinz Mueller et al.

U.S. Patent No. 5,355,958 issued October 18, 1994 to Richard W. Pauls et al.

U.S. Patent No. 5,427,699 issued June 27, 1995 to Richard W. Pauls et al.

U.S. Patent No. 5,489,394 issued February 6, 1996 to William G.F. Ford et al.

U.S. Patent No. 5,830,483 issued November 3, 1998 to Kurt Seidel et al.

U.S. Patent No. 5,869,434 issued February 9, 1999 to Heinz Mueller et al.

U.S. Patent No. 5,909,774 issued June 8, 1999 to James E. Griffith et al.

U.S. Patent No. 5,939,081 issued August 17, 1999 to Achim Ansmann et al.

U.S. Patent No. 6,218,342 B1 issued April 17, 2001 to Avind D. Patel.

U.S. Patent No. 6,268,406 B1 issued July 31, 2001 to Jiten Chatterji et al.

U.S. Patent No. 6,315,042 B1 issued November 13, 2001 to James E. Griffith et al.

U.S. Patent No. 6,422,325 B1 issued July 23, 2002 to Darrell L. Krieger.

U.S. Patent No. 6,435,276 B1 issued August 20, 2002 to James D. Kercheville et al.

U.S. Patent No. 6,524,384 B2 issued February 25, 2003 to James E. Griffith et al.

U.S. Patent No. 6,596,670 B1 issued July 22, 2003 to Heinz Mueller et al.

U.S. Patent No. 6,608,006 B2 issued August 19, 2003 to Robert S. Taylor et al.

U.S. Patent No. 6,620,770 B1 issued September 16, 2003 to Jeff Kirsner et al.

U.S. Patent No. 6,662,871 B2 issued December 16, 2003 to James D. Kercheville et al.

U.S. Patent No. 6,666,268 B2 issued December 23, 2003 to James E. Griffith et al.

U.S. Patent No. 6,668,929 B2 issued December 30, 2003 to James E. Griffith et al.

U.S. Patent No. 6,691,805 B2 issued February 17, 2004 to Carl J. Thaemlitz.

U.S. Patent No. Re. 32, 302 issued December 9, 1986 to Stephen W. Almond et al.

U.S. Patent No. Re. 36,066 issued January 26, 1999 to Heinz Mueller et al.

U.S. Patent No. 4,018,426 issued April 19, 1977 to Richard E. Mertz et al.

U.S. Patent No. 3,946,994 issued March 30, 1976 to Richard E. Mertz et al.

U.S. Patent No. 6,410,035 B1 issued June 25, 2002 to Heinrich Gers-Barlag et al.

U.S. Patent No. 6,645,712 B1 issued November 11, 2003 to Joseph H. Olijve et al.

U.S. Patent No. 5,494,120 issued February 27, 1996 to Arthur H. Hale et al.

U.S. Statutory Invention Registration No. H837 published November 6, 1990 to Dennis G. Peiffer et al.

#### **U.S. PATENT APPLICATION PUBLICATION**

U.S. Patent Application Publication No. US 2001/0009890 A1 published July 26, 2001,  
to Arvind D. Patel et al.

U.S. Patent Application Publication No. US 2001/0051593 A1 published December 13, 2001, to Arvind D. Patel.

U.S. Patent Application Publication No. US 2002/0033258 A1 published March 21, 2002 to Arvind D. Patel.

U.S. Patent Application Publication No. US 2002/0125013 A1 published September 12, 2002 to James D. Kercheville et al.

U.S. Patent Application Publication No. US 2002/0148609 A1 published October 17, 2002 to James D. Kercheville et al.

U.S. Patent Application Publication No. US 2003/0075360 A1 published April 24, 2003 to Arvind D. Patel et al.

U.S. Patent Application Publication No. US 2003/0114316 A1 published June 19, 2003 to Arvind D. Patel et al.

U.S. Patent Application Publication No. US 2004/0043905 A1 published March 4, 2004 to Jeff Miller et al.

#### **FOREIGN PATENTS**

European Patent Specification Number 0 137 538 B1 published March 14, 1990.

#### **OTHER PUBLICATIONS**

Paper entitled "Chalk Emulsion: A New Completion and Workover Fluid" By H.C.H. Darley, July 1972.

SPE 77497 entitled "Crude Oil Emulsions: A State-Of-The Art Review" By Sunil Kokal, dated October 2002.

Paper entitled “Factors Controlling the Stability of Colloid-Stabilized Emulsions” by David E. Tambe et al., Journal of Colloid and Interface Science, dated July 1993.

Paper entitled “Factors Controlling the Stability of Colloid-Stabilizing Emulsions” by David E. Tambe et al., Journal of Colloid and Interface Science, dated October 1994.

Paper entitled “A Study of the Formation of Water-In-Oil Emulsions” by Mark Bobra.

Paper entitled “Oil Well Drilling Fluids”, pages 320-324.

Paper entitled “Droplet-Droplet Interactions In Both Direct and Inverse Emulsions Stabilized by a Balanced Amphiphilic Polyelectrolyte,” by Patrick Perrin, Langmuir The ACS Journal of Surfaces and Colloids, dated February 8, 2000, Volume 16, Number 3.

Paper entitled “Amphiphilic Copolymers: A New Route to Prepare Ordered Monodisperse Emulsions,” by P. Perrin, Langmuir 1998, 14, pages. 5977-5979.

Paper entitled “Shear-Induced Formation of Ordered Monodisperse Emulsions Stabilized By an Associating Amphiphilic Polyelectrolyt,” by Patrick Perrin et al., Langmuir 2001, 17, pages 2656-2663.

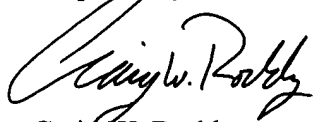
Paper entitled “Rheological Behavior of Highly Concentrated Oil-in-Water (o/w) Emulsions,” by R. Pons, et al., Langmuir 1995, 11, pages 1966-1971.

Paper entitled “UV-Visible Light: A Novel Route to Tune the Type of an Emulsion,” by Iolanda Porcar et al., Langmuir 2001, 17, pages 6905-6909.



Copies of the non-patented references and Form PTO-1449 are submitted herewith.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Craig W. Roddy", written in a cursive style.

Craig W. Roddy  
Registration No. 36,256  
Halliburton Energy Services  
P. O. Box 1431  
Duncan, OK 73536-0440  
580-251-3012

|   |  |                       |
|---|--|-----------------------|
| <b>FORM PTO-1449</b> (Modified)<br>LIST OF PATENTS AND PUBLICATIONS<br>FOR APPLICANT'S INFORMATION<br>DISCLOSURE STATEMENT<br>(Use several sheets if necessary) | ATTORNEY, DOCKET NO.<br>2003-IP-012703U1P1 | SERIAL NO.<br>unknown |
|   | APPLICANT<br>William W. Shumway            |                       |
|   | FILING DATE<br>concurrently herewith       | GROUP<br>Unknown      |

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL |    | Document No. | Date     | Name            | Class | Subclass | Filing<br>Date if<br>Appropriate |
|---------------------|----|--------------|----------|-----------------|-------|----------|----------------------------------|
|                     | AA | 3,125,517    | 03/17/64 | Voda et al.     | 252   | 8.5      |                                  |
|                     | AB | 3,826,771    | 07/30/74 | Anderson et al. | 260   | 39.6 H   |                                  |
|                     | AC | 4,033,784    | 07/05/77 | Lawson et al.   | 134   | 20       |                                  |
|                     | AD | 4,068,676    | 01/17/78 | Thorn et al.    | 137   | 13       |                                  |
|                     | AE | 4,107,057    | 08/15/78 | Dill et al.     | 252   | 8.55 C   |                                  |
|                     | AF | 4,108,681    | 08/22/78 | Lawson et al.   | 134   | 20       |                                  |
|                     | AG | 4,392,917    | 07/12/83 | Lipowski et al. | 162   | 168.1    |                                  |
|                     | AH | 4,460,483    | 07/17/84 | Weaver          | 252   | 8.55 R   |                                  |
|                     | AI | 4,480,696    | 11/06/84 | Almond et al.   | 166   | 308      |                                  |
|                     | AJ | 4,502,963    | 03/05/85 | Harmon          | 252   | 8.5 P    |                                  |
|                     | AK | 4,519,455    | 05/28/85 | Holtmyer et al. | 166   | 305 R    |                                  |

## FOREIGN PATENT DOCUMENTS

|  |    | Document No. | Date     | Country | Class | Subclass | Translation |    |
|--|----|--------------|----------|---------|-------|----------|-------------|----|
|  |    |              |          |         |       |          | Yes         | No |
|  | AL | 0 137 538 B1 | 03/14/90 | Europe  | C09K  | 7/06     | X           |    |
|  | AM |              |          |         |       |          |             |    |
|  | AN |              |          |         |       |          |             |    |
|  | AO |              |          |         |       |          |             |    |
|  | AP |              |          |         |       |          |             |    |

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|  |    |  |  |
|--|----|--|--|
|  | AR |  | Paper entitled "Chalk Emulsion: A New Completion and Workover Fluid"   |
|  |    |  | By H.C.H. Darley, July 1972.   |
|  | AS |  | SPE 77497 entitled "Crude Oil Emulsions: A State-Of-The Art Review"    |
|  |    |  | By Sunil Kokal, dated October 2002.                                    |
|  | AT |  | Paper entitled "Factors Controlling the Stability of Colloid-          |
|  |    |  | Stabilized Emulsions" by David E. Tambe et al., Journal of Colloid and |
|  |    |  | Interface Science, dated July 1993.                                    |

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

|   |  |                       |
|---|--|-----------------------|
| <b>FORM PTO-1449 (Modified)</b><br><br>LIST OF PATENTS AND PUBLICATIONS<br>FOR APPLICANT'S INFORMATION<br>DISCLOSURE STATEMENT<br><br>(Use several sheets if necessary) | ATTY. DOCKET NO.<br>2003-IP-012703U1P1 | SERIAL NO.<br>unknown |
|   | APPLICANT<br>William W. Shumway        |                       |
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|---------------------|----|--------------|----------|-----------------|-------|----------|----------------------------------|
|                     | AA | 4,554,082    | 11/19/85 | Holymyer et al. | 252   | 8.55 R   |                                  |
|                     | AB | 4,627,495    | 12/09/86 | Harris et al.   | 166   | 280      |                                  |
|                     | AC | 4,659,486    | 04/21/87 | Harmon          | 252   | 8.5      |                                  |
|                     | AD | 4,670,550    | 06/02/87 | Bleeker et al.  | 536   | 114      |                                  |
|                     | AE | 4,772,646    | 09/20/88 | Harms et al.    | 524   | 27       |                                  |
|                     | AF | 5,021,170    | 06/04/91 | Shumate et al.  | 252   | 8.515    |                                  |
|                     | AG | 5,194,422    | 03/16/93 | Mueller et al.  | 507   | 136      |                                  |
|                     | AH | 5,232,910    | 08/03/93 | Mueller et al.  | 507   | 139      |                                  |
|                     | AI | 5,252,554    | 10/12/93 | Mueller et al.  | 507   | 138      |                                  |
|                     | AJ | 5,254,531    | 10/19/93 | Mueller et al.  | 507   | 131      |                                  |
|                     | AK | 5,294,353    | 03/15/94 | Dill            | 252   | 8.553    |                                  |

## FOREIGN PATENT DOCUMENTS

|  |    | Document No. | Date | Country | Class | Subclass | Translation |    |
|--|----|--------------|------|---------|-------|----------|-------------|----|
|  |    |              |      |         |       |          | Yes         | No |
|  | AL |              |      |         |       |          |             |    |
|  | AM |              |      |         |       |          |             |    |
|  | AN |              |      |         |       |          |             |    |
|  | AO |              |      |         |       |          |             |    |
|  | AP |              |      |         |       |          |             |    |

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|  |    |  |   |
|--|----|--|---|
|  | AR |  | Paper entitled "Factors Controlling the Stability of Colloid-Stabilizing Emulsions" by David E. Tambe et al., Journal of Colloid and Interface Science, dated October 1994. |
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|  | AT |  | Paper entitled "Oil Well Drilling Fluids", pages 320-324.   |

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|   |  |                       |
|---|--|-----------------------|
| <b>FORM PTO-1449 (Modified)</b><br><br>LIST OF PATENTS AND PUBLICATIONS<br>FOR APPLICANT'S INFORMATION<br>DISCLOSURE STATEMENT<br><br>(Use several sheets if necessary) | ATTY. DOCKET NO.<br>2003-IP-012703U1P1 | SERIAL NO.<br>unknown |
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|                     | AB | 5,355,958    | 10/18/94 | Pauls et al.     | 166   | 307      |                                  |
|                     | AC | 5,427,699    | 06/27/95 | Pauls et al.     | 507   | 244      |                                  |
|                     | AD | 5,489,394    | 02/06/96 | Ford et al.      | 252   | 162      |                                  |
|                     | AE | 5,830,483    | 11/03/98 | Seidel et al.    | 424   | 401      |                                  |
|                     | AF | 5,869,434    | 02/09/99 | Mueller et al.   | 507   | 110      |                                  |
|                     | AG | 5,909,774    | 06/08/99 | Griffith et al.  | 166   | 312      |                                  |
|                     | AH | 5,939,081    | 08/17/99 | Ansmann et al.   | 424   | 401      |                                  |
|                     | AI | 6,218,342 B1 | 04/17/01 | Patel            | 507   | 129      |                                  |
|                     | AJ | 6,268,406 B1 | 07/31/01 | Chatterji et al. | 523   | 130      |                                  |
|                     | AK | 6,315,042 B1 | 11/13/01 | Griffith et al.  | 166   | 291      |                                  |

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|  |    | Document No. | Date | Country | Class | Subclass | Translation |    |
|--|----|--------------|------|---------|-------|----------|-------------|----|
|  |    |              |      |         |       |          | Yes         | No |
|  | AL |              |      |         |       |          |             |    |
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|  | AO |              |      |         |       |          |             |    |
|  | AP |              |      |         |       |          |             |    |

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|  | AR |  | Paper entitled "Droplet-Droplet Interactions In Both Direct and Inverse Emulsions Stabilized by a Balanced Amphiphilic Polyelectrolyte," by Patrick Perrin, Langmuir The ACS Journal of Surfaces and Colloids, dated February 8, 2000, Volume 16, Number 3. |  |  |  |  |  |
|  | AS |  | Paper entitled "Amphiphilic Copolymers: A New Route to Prepare Ordered Monodisperse Emulsions," by P. Perrin, Langmuir 1998, 14, pages. 5977-5979.  |  |  |  |  |  |
|  | AT |  | Paper entitled "Shear-Induced Formation of Ordered Monodisperse Emulsions Stabilized By an Associating Amphiphilic Polyelectrolyte," by Patrick Perrin et al., Langmuir 2001, 17, pages 2656-2663.  |  |  |  |  |  |

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|---|--|-----------------------|
| <b>FORM PTO-1449 (Modified)</b><br><br>LIST OF PATENTS AND PUBLICATIONS<br>FOR APPLICANT'S INFORMATION<br>DISCLOSURE STATEMENT<br><br>(Use several sheets if necessary) | ATTY. DOCKET NO.<br>2003-IP-012703U1P1 | SERIAL NO.<br>unknown |
|   | APPLICANT<br>William W. Shumway        |                       |
|   | FILING DATE<br>concurrently herewith   | GROUP<br>Unknown      |

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL |    | Document No. | Date     | Name               | Class | Subclass | Filing<br>Date if<br>Appropriate |
|---------------------|----|--------------|----------|--------------------|-------|----------|----------------------------------|
|                     | AA | 6,422,325 B1 | 07/23/02 | Krieger            | 175   | 50       |                                  |
|                     | AB | 6,435,276 B1 | 08/20/02 | Kercheville et al. | 166   | 255.1    |                                  |
|                     | AC | 6,524,384 B2 | 02/25/03 | Griffith et al.    | 106   | 705      |                                  |
|                     | AD | 6,596,670 B1 | 07/22/03 | Mueller et al.     | 507   | 136      |                                  |
|                     | AE | 6,608,006 B2 | 08/19/03 | Taylor et al.      | 507   | 131      |                                  |
|                     | AF | 6,620,770 B1 | 09/16/03 | Kirsner et al.     | 507   | 131      |                                  |
|                     | AG | 6,662,871 B2 | 12/16/03 | Kercheville et al. | 166   | 255.1    |                                  |
|                     | AH | 6,666,268 B2 | 12/23/03 | Griffith et al.    | 166   | 292      |                                  |
|                     | AI | 6,668,929 B2 | 12/30/03 | Griffith et al.    | 166   | 292      |                                  |
|                     | AJ | 6,691,805 B2 | 02/17/04 | Thaemlitz          | 175   | 65       |                                  |
|                     | AK | Re 32,302    | 12/09/86 | Almond et al.      | 166   | 308      |                                  |

## FOREIGN PATENT DOCUMENTS

|  |    | Document No. | Date | Country | Class | Subclass | Translation |    |
|--|----|--------------|------|---------|-------|----------|-------------|----|
|  |    |              |      |         |       |          | Yes         | No |
|  | AL |              |      |         |       |          |             |    |
|  | AM |              |      |         |       |          |             |    |
|  | AN |              |      |         |       |          |             |    |
|  | AO |              |      |         |       |          |             |    |
|  | AP |              |      |         |       |          |             |    |

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|  |    |  |  |  |  |  |  |  |
|--|----|--|--|--|--|--|--|--|
|  | AR |  | Paper entitled "Rheological Behavior of Highly Concentrated Oil-in-Water (o/w) Emulsions," by R. Pons, et al., Langmuir 1995, 11, pages 1966-1971. |  |  |  |  |  |
|  | AS |  | Paper entitled "UV-Visible Light: A Novel Route to Tune the Type of an Emulsion," by Iolanda Porcar et al., Langmuir 2001, 17, pages 6905-6909.    |  |  |  |  |  |
|  | AT |  |  |  |  |  |  |  |

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|   | APPLICANT<br>William W. Shumway        |                       |
|   | FILING DATE<br>concurrently herewith   | GROUP<br>Unknown      |

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|---------------------|----|--------------------------|----------|--------------------|-------|----------|----------------------------------|
|                     | AA | Re. 36,066               | 01/26/99 | Mueller et al.     | 507   | 138      |                                  |
|                     | AB | 4,018,426                | 04/19/77 | Mertz et al.       | 259   | 7        |                                  |
|                     | AC | 3,946,994                | 03/30/76 | Mertz et al.       | 259   | 7        |                                  |
|                     | AD | 6,410,035 B1             | 06/25/02 | Gers-Barlag et al. | 424   | 401      |                                  |
|                     | AE | 6,645,712 B1             | 11/11/03 | Olijve et al.      | 430   | 543      |                                  |
|                     | AF | 5,494,120                | 02/27/96 | Hale et al.        | 175   | 72       |                                  |
|                     | AG | H837                     | 11/06/90 | Peiffer et al.     | 252   | 8.511    |                                  |
|                     | AH | US<br>2001/0009890<br>A1 | 07/26/01 | Patel et al.       | 507   | 138      |                                  |
|                     | AI | US<br>2001/0051593<br>A1 | 12/13/01 | Patel              | 507   | 129      |                                  |
|                     | AJ | US<br>2002/0033258<br>A1 | 03/21/02 | Patel              | 166   | 278      |                                  |
|                     | AK | US<br>2002/0125013<br>A1 | 09/12/02 | Kercheville et al. | 166   | 304      |                                  |

## FOREIGN PATENT DOCUMENTS

|  |    | Document No. | Date | Country | Class | Subclass | Translation |    |
|--|----|--------------|------|---------|-------|----------|-------------|----|
|  |    |              |      |         |       |          | Yes         | No |
|  | AL |              |      |         |       |          |             |    |
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|  | AN |              |      |         |       |          |             |    |
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|  | AP |              |      |         |       |          |             |    |

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

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|   | APPLICANT<br>William W. Shumway        |                       |
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|---------------------|----|--------------------------|----------|--------------------|-------|----------|----------------------------------|
|                     | AA | US<br>2002/0148609<br>A1 | 10/17/02 | Kercheville et al. | 166   | 255.1    |                                  |
|                     | AB | US<br>2003/0075360<br>A1 | 04/24/03 | Patel et al.       | 175   | 50       |                                  |
|                     | AC | US<br>2003/0114316<br>A1 | 06/19/03 | Patel et al.       | 507   | 138      |                                  |
|                     | AD | US<br>2004/0043905<br>A1 | 03/04/04 | Miller et al.      | 50    | 7100     |                                  |
|                     | AE |                          |          |                    |       |          |                                  |
|                     | AF |                          |          |                    |       |          |                                  |
|                     | AG |                          |          |                    |       |          |                                  |
|                     | AH |                          |          |                    |       |          |                                  |
|                     | AI |                          |          |                    |       |          |                                  |
|                     | AJ |                          |          |                    |       |          |                                  |
|                     | AK |                          |          |                    |       |          |                                  |

*FOREIGN PATENT DOCUMENTS*

|  |    | Document No. | Date | Country | Class | Subclass | <u>Translation</u> |    |
|--|----|--------------|------|---------|-------|----------|--------------------|----|
|  |    |              |      |         |       |          | Yes                | No |
|  | AL |              |      |         |       |          |                    |    |
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|  | AN |              |      |         |       |          |                    |    |
|  | AO |              |      |         |       |          |                    |    |
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